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Standards and Technology

# National Vulnerability Database

a comprehensive cyber vulnerability resource

## Handling IT System Threat Information

Peter Mell

National Vulnerability Database

NIST

10/5/2005

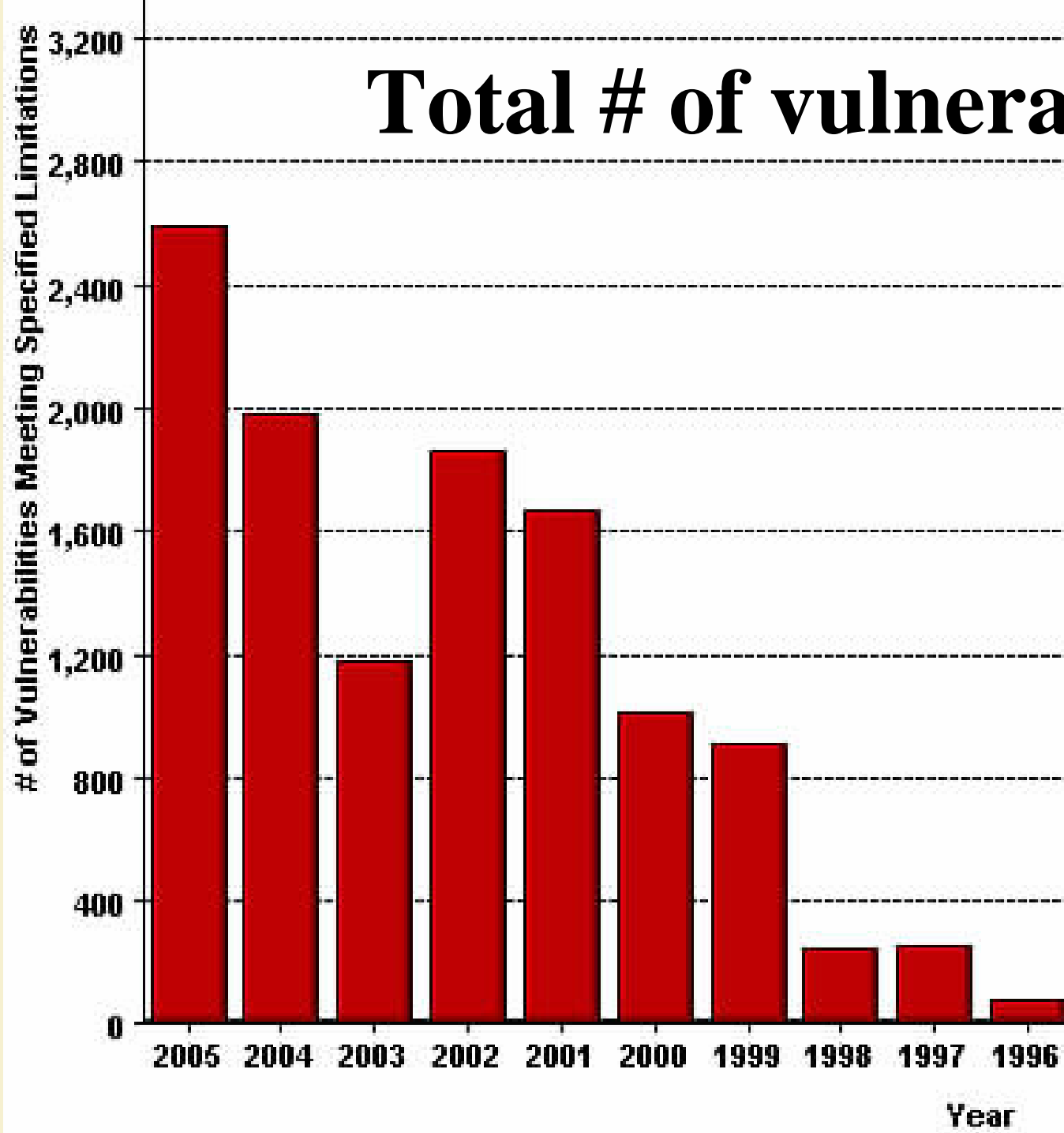


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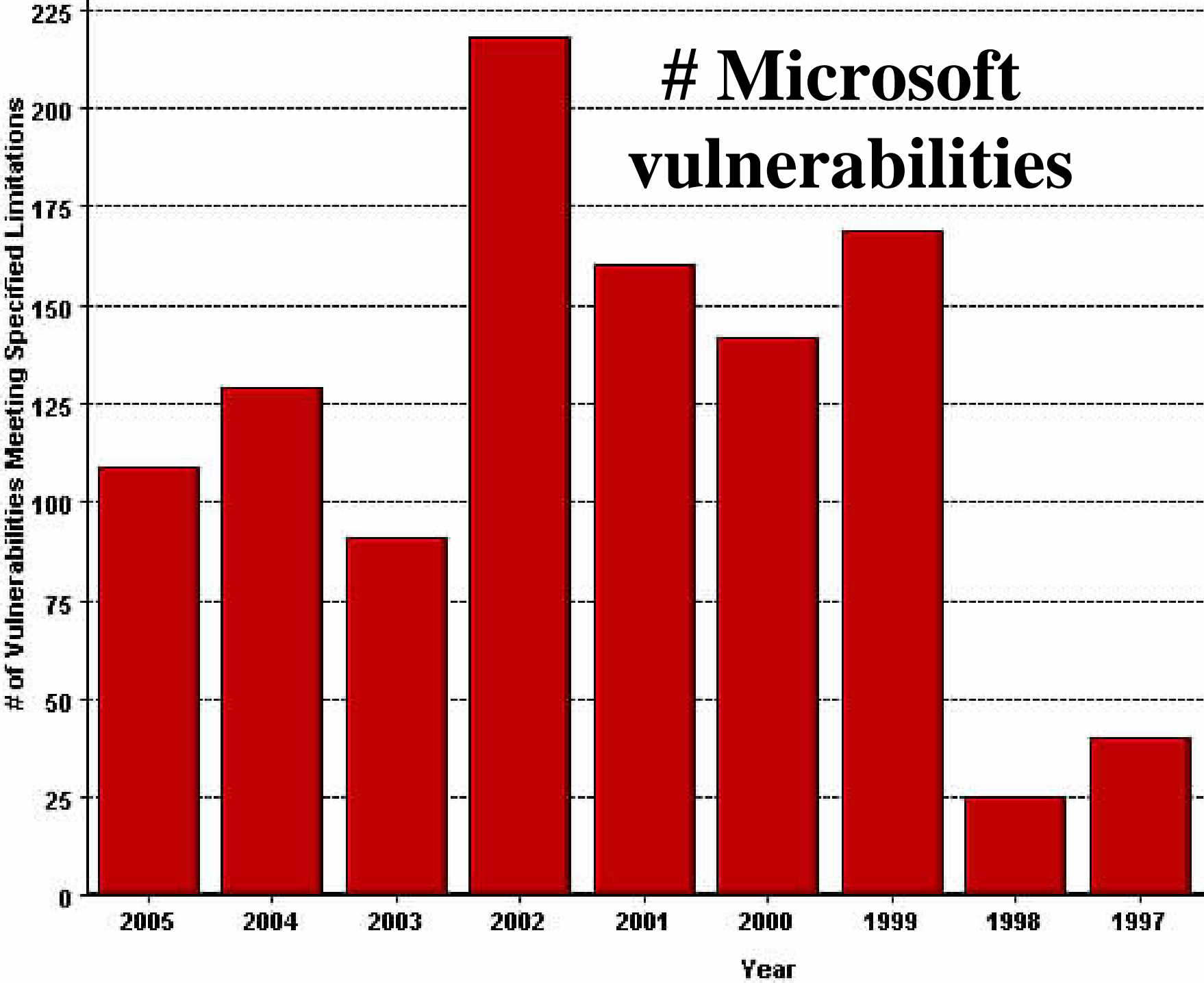
# Vulnerabilities are Present in Virtually all Software

- 10 widely applicable software vulnerabilities published each day
- National Vulnerability Database contains 12769 vulnerabilities
- Industry attempts to build more secure software
  - 2001 Microsoft: Security Initiative
  - 2002 Oracle: Media campaign of ‘Unbreakable’

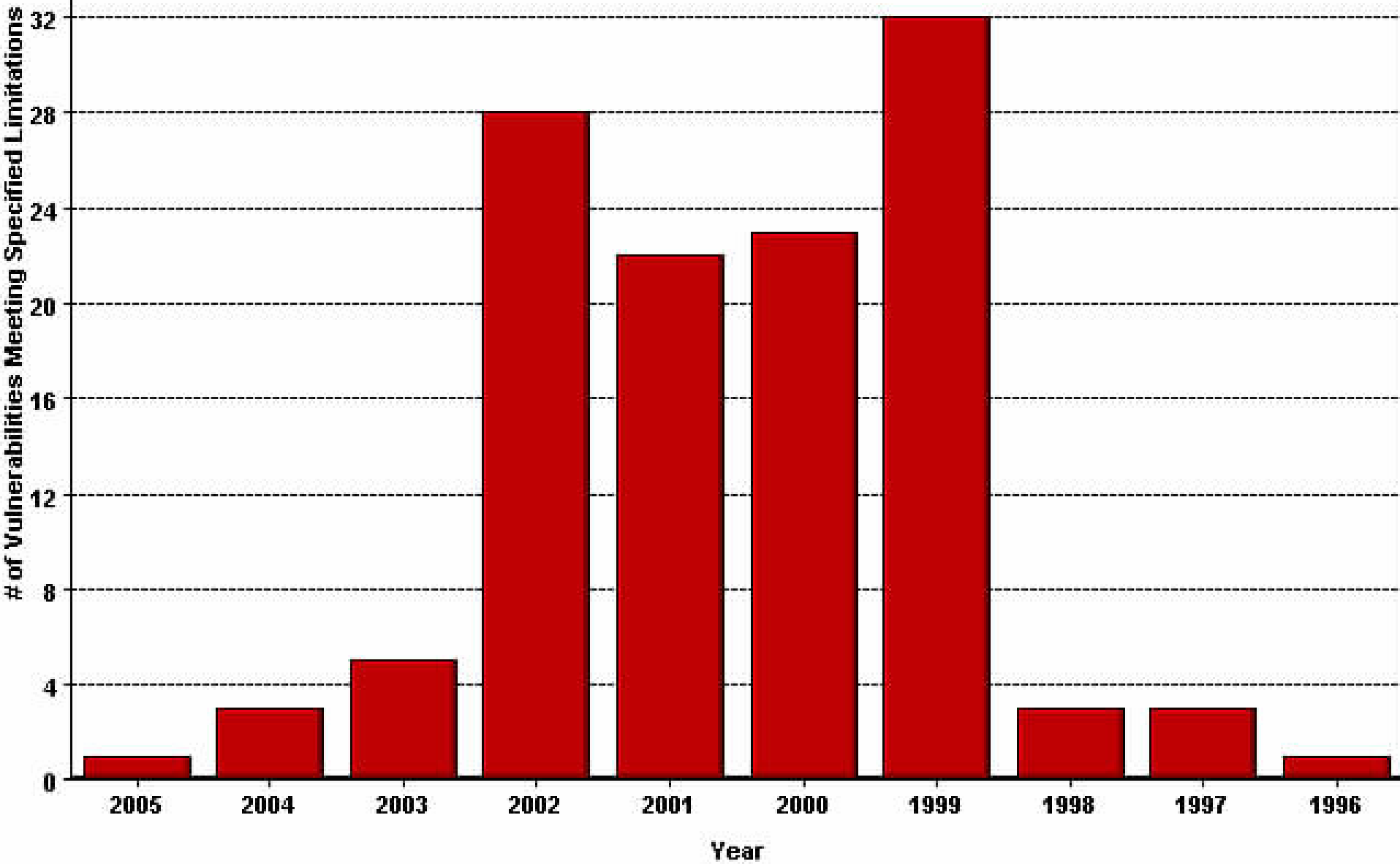
# Total # of vulnerabilities



# # Microsoft vulnerabilities



# # of IIS vulnerabilities



# Software Vulnerability Information is Widely and Publicly Shared

- Public mailing lists exist where people submit discovered vulnerabilities
- A standards committee creates a dictionary of all known vulnerabilities
- Publicly available vulnerability databases provide detailed information (even exploit scripts)
- Overall, this is beneficial and helps secure our nation's computers

# Not all Vulnerabilities are Exploited Over the Network

- Over 20% of vulnerabilities can be exploited with local access to the computer

## Case Study:

- April - Locally exploitable vulnerability found in Microsoft Office (MS Jet component, CAN-2005-0944). Allows complete control of the computer.
- September - Exploit code publicly distributed
- October - Patch still not available



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